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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT	PAPER NUMBER
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1792

NOTIFICATION DATE	DELIVERY MODE
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10/23/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/531,633	Applicant(s) LICHTE ET AL.	
	Examiner Elena Tsoy Lightfoot	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) 15-17 and 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/06/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Amendment filed on August 15, 2008 has been entered. No claims have been added or canceled. Claims 1-10, 12-17 and 19-24 are pending in the application. Claims 15-17 and 19-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-10 and 12-14, in the reply filed on August 15, 2008 is acknowledged. The traversal is on the ground(s) that the compositions disclosed and claimed in Pallazzotto require at least one ethylenically-unsaturated monomer. (Abstract; claim 1). In contrast, Applicants' amended Claim 1 recites a(1) at least one constituent comprising at least one polymer having a number average molecular weight of from 1000 to 5000. As such, Palazzotto does not anticipate Applicants' independent claim 1. A compound or composition of matter is anticipated if the disclosure in a single reference. This is not found persuasive because Palazzotto further teaches that suitable compounds containing at least one ethylenically-unsaturated double bond also include acrylated oligomers as described in U.S. Pat. No. 4,642,126 (See column 7, lines 46-47) having preferably average molecular weight between 900 and 6000 such as acrylated oligomers commercially available from Thiokol Corp., Trenton, N.J. under the trademarks Uvithane 783 (See Patent '126, column 4, lines 31-50) having an average **molecular weight of about 1200** (See Patent '126, column 8, lines 44-46). Note that Uvithane 783 from Thiokol Corp. is also referred to in the art as a **polymer**, as evidenced by US 4526219 to Dunnavant (See column 4, lines 65-68).

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Note also that at page 15, lines 11-19, Applicants' specification describes oligomers and polymers as: "In the context of the present invention, an oligomer is a compound containing in general on average from 2 **to 15** basic structures or monomer units. A polymer, in contrast, is a compound containing in general on average **at least 10** basic structures or monomer units", i.e. according to Applicants' specification, oligomers and polymers may read on the same compounds.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 12 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the use of antimony tin mixed oxide coated mica as electrically conductive pigment does not reasonably provide enablement for mica as electrically conductive pigment. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

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Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4-17 of U.S. Patent No. **6835759**. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are directed to the same subject matter; and the scope of the current invention is broader than that of the Application No. 09/941,283. Note that claim 9 recites polyisocyanate without limitation. Therefore, polyisocyanate would obviously include aromatic polyisocyanate.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Palazzotto et al (US 5,326,621) and Zador et al (US 4,642,126), and applied as evidence Dunnavant et al (US 4526219).

Palazzotto et al discloses a dual (**UV and thermal**) curing (See column 3, lines 23-30) coating material (See column 15, lines 53-54) comprising all claimed constituents: ethylenically-unsaturated oligomers (claimed constituent (a1)) (See column 7, lines 22-26), diols and polyols or compounds bearing at least two isocyanate-reactive hydrogen atoms (claimed constituent comprising at least two isocyanate-reactive groups (a2)) (See column 3, lines 42-45, 59-60; column 9, 19-20, 65-66), and polyisocyanates such as aromatic polyisocyanate (claimed (a3) which is free from functional groups (a11)) (See column 3, line 57 to column 8, line 13). The constituent (a1) includes acrylated oligomers as described in U.S. Pat. No. 4,642,126 (See column 7, lines 46-47) prepared by reacting linear polyester **polyol** core (claimed isocyanate-reactive group (a12)), terminated with toluene diisocyanate, with 2-hydroxyethyl acrylate (See Patent '126, column 4, lines 41-44) such as acrylated oligomers commercially available from Thiokol Corp., Trenton, N.J. under the trademarks Uvithane 783 (See Patent '126, column 4, lines 31-50) having an average **molecular weight of about 1200** (See Patent '126, column 8, lines 44-46). Note that Uvithane 783 from Thiokol Corp. is also referred to in the art as a **polymer**, as evidenced by US 4526219 to Dunnavant (See column 4, lines 65-68).

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As to claim 6, Palazzotto et al discloses that the compounds bearing at least two isocyanate-reactive hydrogen atoms include polyesters, polyethers and poly(meth)acrylates (See column 9, lines 19-36).

9. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palazzotto et al, Zador et al and Dunnavant et al.

As to claims 7, 9, Palazzotto et al discloses that the polyisocyanates include **any** aliphatic, *cycloaliphatic*, araliphatic, *aromatic*, or heterocyclic polyisocyanate, or **any combination** of such polyisocyanates (See column 7, lines 57-62). The examples of polyisocyanates include *cyclohexane-1,3- and -1,4-diisocyanate* and mixtures of these isomers, 1-isocyanato-3,3,5-trimethyl-5-isocyanatomethyl *cyclohexane* (See column 8, lines 14-22), and 1-isocyanato-3,3,5-trimethyl-5-isocyanatomethyl *cyclohexane (isophorone diisocyanate)* (See column 9, lines 11-13) and 4,4'-methylene bis(*cyclohexylisocyanate*) (See column 9, lines 10-11). Palazzotto et al further discloses that the preferred polyisocyanates include *hexamethylene diisocyanate*, its ***isocyanurate**** (claimed cycloaliphatic polyisocyanate based on hexamethylene diisocyanate) (See column 9, lines 9-10); *tolylene diisocyanates* and their isocyanurates; the ***mixed isocyanurate*** of tolylene diisocyanate and hexamethylene diisocyanate (See column 9, lines 9-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a mixture of tolylene diisocyanates and hexamethylene diisocyanate isocyanurate in Palazzotto et al.

As to claimed ratio, it is held that concentration limitations are obvious absent a showing of criticality. *Akzo v. E.I. du Pont de Nemours* 1 USPQ 2d 1704 (Fed. Cir. 1987). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

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to have determined the optimum values of the relevant concentration and ratio parameters (including those of claimed invention) in Palazzotto et al through routine experimentation depending on particular coating composition in the absence of a showing of criticality.

As to claim 8, Palazzotto et al discloses that examples of polyisocyanates include 2,4- and 2,6-hexahydrotolylene diisocyanate and mixtures of these isomers (See column 8, lines 26-28). It is the Examiner's position that the mixture would obviously include their technical-grade mixtures.

10. Claims 10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palazzotto et al, Zador et al and Dunnavant et al, as applied above, and further in view of Bastian et al (DE 4011867).

Palazzotto et al discloses that adjuvants such as pigments, abrasive granules, flattening agents, colorants, inert fillers, etc. as known to those skilled in the art can be added to the compositions (See column 15, lines 45-52). However, Palazzotto et al fails to teach that pigment includes electrically conductive pigment such as antimony tin mixed oxide coated mica.

Bastian et al teaches that electrically conductive antimony doped tin oxide coated mica may be used such a pigment in UV-curable coating composition (See Abstract) comprising acrylate based oligomers (See page 2, lines 35-49). It is the Examiner's position that the antimony tin mixed oxide coated mica is transparent to UV light since the coating composition is curable by UV light.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used antimony tin mixed oxide coated mica as pigment in Palazzotto et al since Palazzotto et al does not limit its teaching to a particular pigment.

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

* US 4560494 to Druetzler is cited as evidence that *hexamethylene diisocyanate isocyanurate* is cycloaliphatic polyisocyanate based on hexamethylene diisocyanate (See column 3, line 66 to column 4, line 10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.
Primary Examiner
Art Unit 1792

October 22, 2008

/Elena Tsoy Lightfoot/